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10/613,199

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Yong C. Kim

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EXAMINER

FISHMAN, MARINA

ART UNIT

PAPER NUMBER

2832

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/613,199  
Filing Date: July 03, 2003  
Appellant(s): KIM ET AL.

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Leon D. Rosen  
For Appellant

**MAILED**

**MAR 8 2006**

**GROUP 2800**

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 23, 2005 appealing from the Office action mailed June 30, 2004.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,890,811	Kautz et al.	9-1999
4,920,240	Poling	4-1990

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kautz et al. [US 5,950,811] in view of Poling [US 4,920,240].

Kautz et al. disclose a snap action switch, which includes:

- upper and lower nonsnap contacts [18, 25];
- a snap action actuator [22] with an actuation location and tripping leg [Figure 2];
- a middle snap contact [24] on the tripping leg, lying between the upper and lower contacts [Figure 1]; and being moveable between a down position against the lower contact and an up position against the upper contact [Figures 3 - 7];
- the actuator being constructed to snap the middle contact from the down position to the up position, when the actuation location is depressed beyond a first snap height [Figures 1, 4, 7; Column 2, lines 65 – 68] and to snap the middle contact from the up position to the down position when the actuation

location is allowed to rise beyond a second snap height  
[Figures 3, 5];

- a switch operator [56] with an operator end lying directly over the actuation location [Figures 1,3 –7];
- a spring [60].

Regarding Claims 1, 4 and 9, Kautz et al. disclose the instant claimed invention except for means for varying height of one of the nonsnap contacts, to vary one of the snap heights at which the middle contact snaps. Poling discloses a switch having the means [177, 179, Figure 3] for varying height of the nonsnap contact. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the means for varying height of one of the nonsnap contact, in Kautz et al., as suggested by Poling, in order to adjust the distance between stationary contact and movable contact. This would allow regulation of the switching time of the associated circuits [Column 12, lines 24 – 65].

Regarding Claim 9, the structure of the snap action switch dictates a method of use.

Regarding Claim 6, Kautz et al. disclose the instant claimed invention except for a fluid inlet and a membrane. Poling discloses a fluid inlet and a membrane [Figures 1, 3; Column 5, lines 32 – 45]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a fluid inlet and membrane in Kautz et al., as suggested by Poling, in order to operate an electric circuit controlling devices [Column 3, lines 45 – 50].

***Allowable Subject Matter***

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**(10) Response to Argument**

The Applicant has argued that Kautz does not show or suggest any means for adjustment only the height to which his button must be raised to snap down his middle contact. He does not suggest accomplishing such adjustment of one snap height, by means for varying the height of one of his two nonsnap contacts. The Examiner agrees, however, the Examiner has used Poling reference for obtaining the teaching of adjustment. Poling teaches use of two pins for adjusting the height of one of the nonsnap contacts.

The Applicant has also argued that Poling does not show snapping action, but only gradual movement. The Examiner wishes to point out that Poling is not used for snapping action and in fact Poling discloses snap action switch [Abstract].

In reference to the Poling reference, the Applicant has argued, "two pins 177, 179 of Poling are press fitted and that determines the positions of two contacts 167, 165. His switch is not relevant to a snap action switch where the particular snap height, at which the moveable contact suddenly snaps and keeps moving until stops, is determined by the position of an opposite stationary contact." Examiner respectfully disagrees. The Poling reference [Column 12, lines 24-32] cites "a set of **adjusting or calibrating pins** 177, 179, 181 are press fitted into a set of openings 183, 185, 187

provided therefor in lower housing member 65 and into deforming engagement with terminals 171, 173, 175 so as to adjust stationary contacts 165, 167, 169 thereon with respect to movable contacts 155, 157, 159 on switch elements 43, 45, 47 thereby to adjust or calibrate the travel of switching means 37, 39, 41, as well known to the art," clearly suggests that the pins are provided for "adjusting" or "calibrating" travel of stationary contacts with respect to movable contacts. This would allow regulation of the switching time of the associated circuits [Column 12, lines 24 – 65].

With regard to Claim 5, in view of the Attorney's argument, the Examiner has reconsidered her position, and Claim 5 is considered to have allowable subject matter.

In addition, the Applicant has argued that in Kautz there is no indication as to raising or lowering his nonsnap contact 18, 25, and such raising or lowering in Kautz would be about as difficult to do as to precisely vary the positions of the press-fit pins in Poling and Poling's fixed pins 177, 179 do not allow adjustment of snapping height. The Examiner respectfully disagrees. The degree of difficulty in making modification in Kautz as suggested by Poling is irrelevant; also, the Examiner does not think that making such modification will be difficult. As to the argument that Poling's fixed pins do not allow adjustment, the Examiner has already pointed out to Column 12, lines 24 - 32, where Poling suggests that pins 177, 179 can be used to adjusting or calibrate the travel of switching means.

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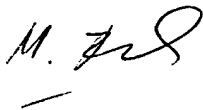
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Marina Fishman



February 22, 2006

Conferees:

Elvin Enad



Darren Schuberg

